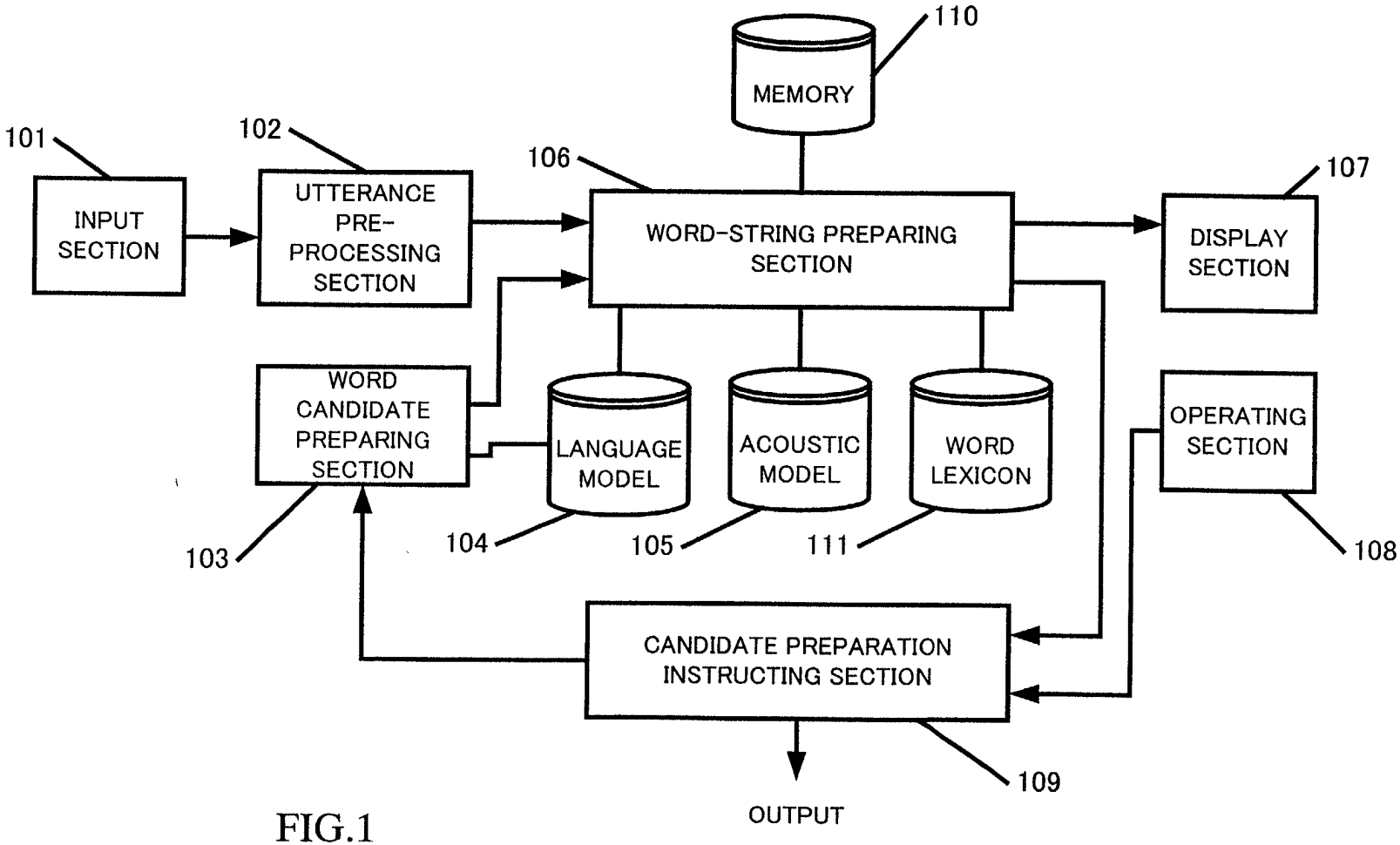

MEMORY
110
101
102
106
107
INPUT SECTION
UTTERANCE PRE-PROCESSING SECTION
WORD-STRING PREPARING SECTION
DISPLAY SECTION
WORD CANDIDATE PREPARING SECTION
LANGUAGE MODEL
ACOUSTIC MODEL
WORD LEXICON
OPERATING SECTION
103
104
105
111
108
CANDIDATE PREPARATION INSTRUCTING SECTION
109
OUTPUT

FIG.1

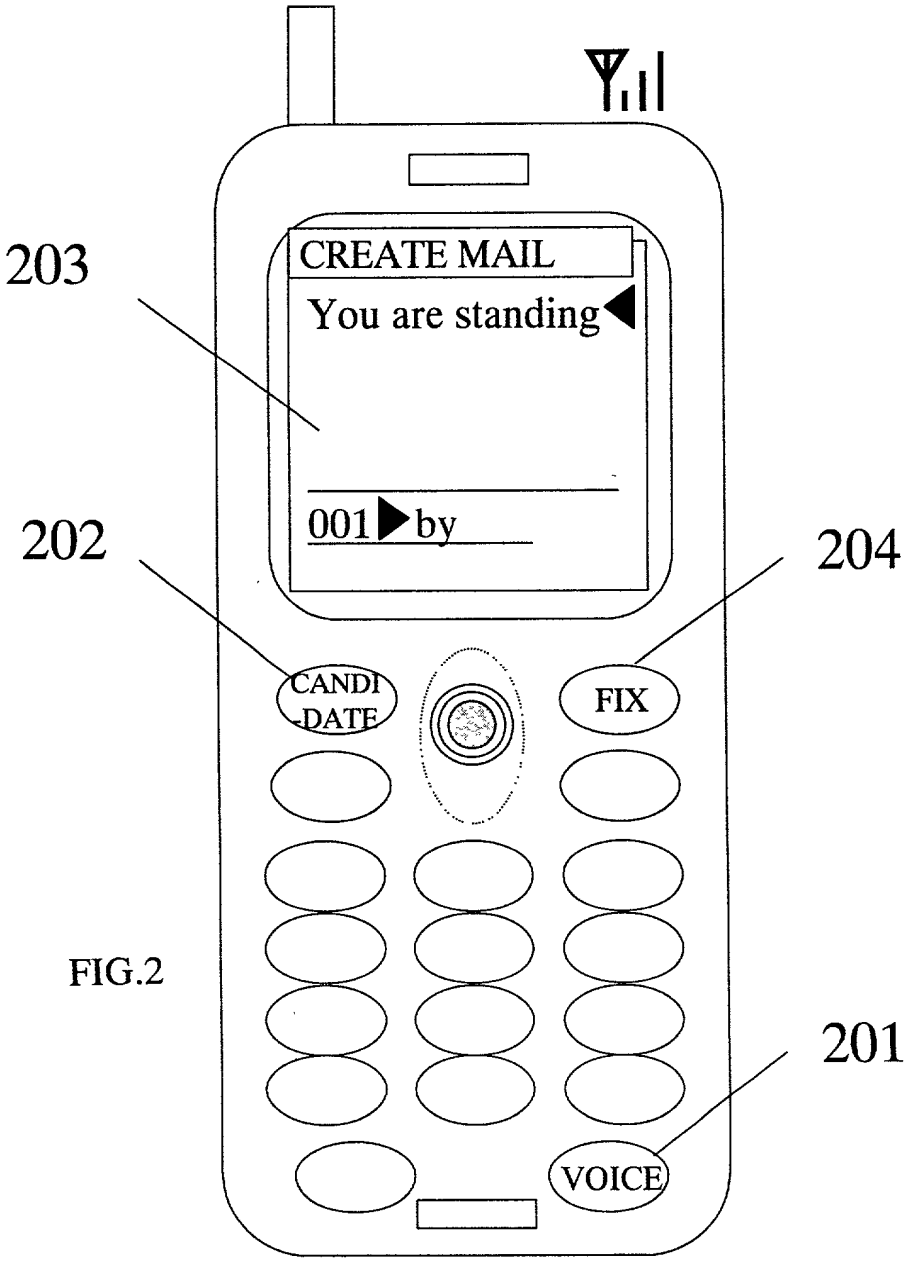

203
CREATE MAIL
You are standing
001 by
202
204
CANDI DATE
FIX
VOICE
201

FIG.2

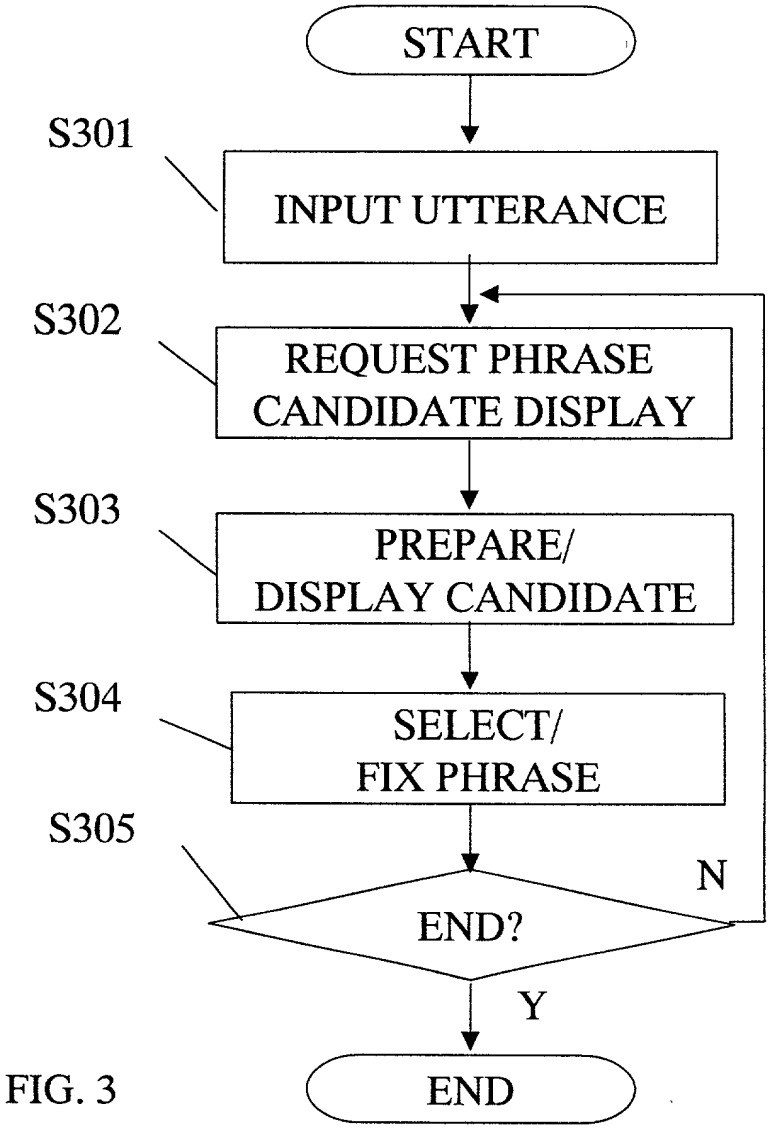

START
S301
INPUT UTTERANCE
S302
REQUEST PHRASE CANDIDATE DISPLAY
S303
PREPARE/ DISPLAY CANDIDATE
S304
SELECT/ FIX PHRASE
S305
END?
N
Y
END

FIG. 3

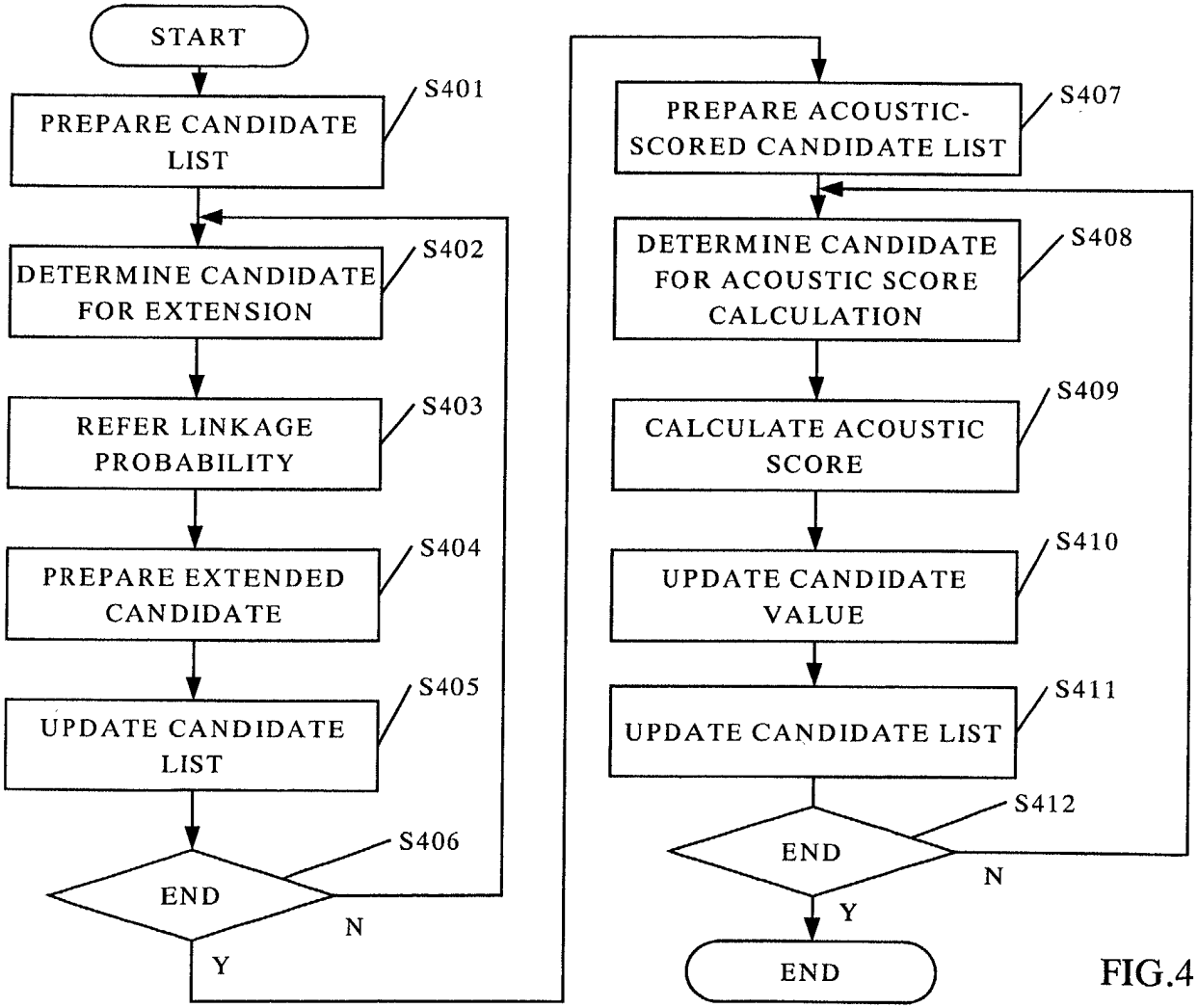

START
PREPARE CANDIDATE LIST
S401
DETERMINE CANDIDATE FOR EXTENSION
S402
REFER LINKAGE PROBABILITY
S403
PREPARE EXTENDED CANDIDATE
S404
UPDATE CANDIDATE LIST
S405
END
S406
N
Y
PREPARE ACOUSTIC-SCORED CANDIDATE LIST
S407
DETERMINE CANDIDATE FOR ACOUSTIC SCORE CALCULATION
S408
CALCULATE ACOUSTIC SCORE
S409
UPDATE CANDIDATE VALUE
S410
UPDATE CANDIDATE LIST
S411
END
S412
N
Y
END

FIG.4

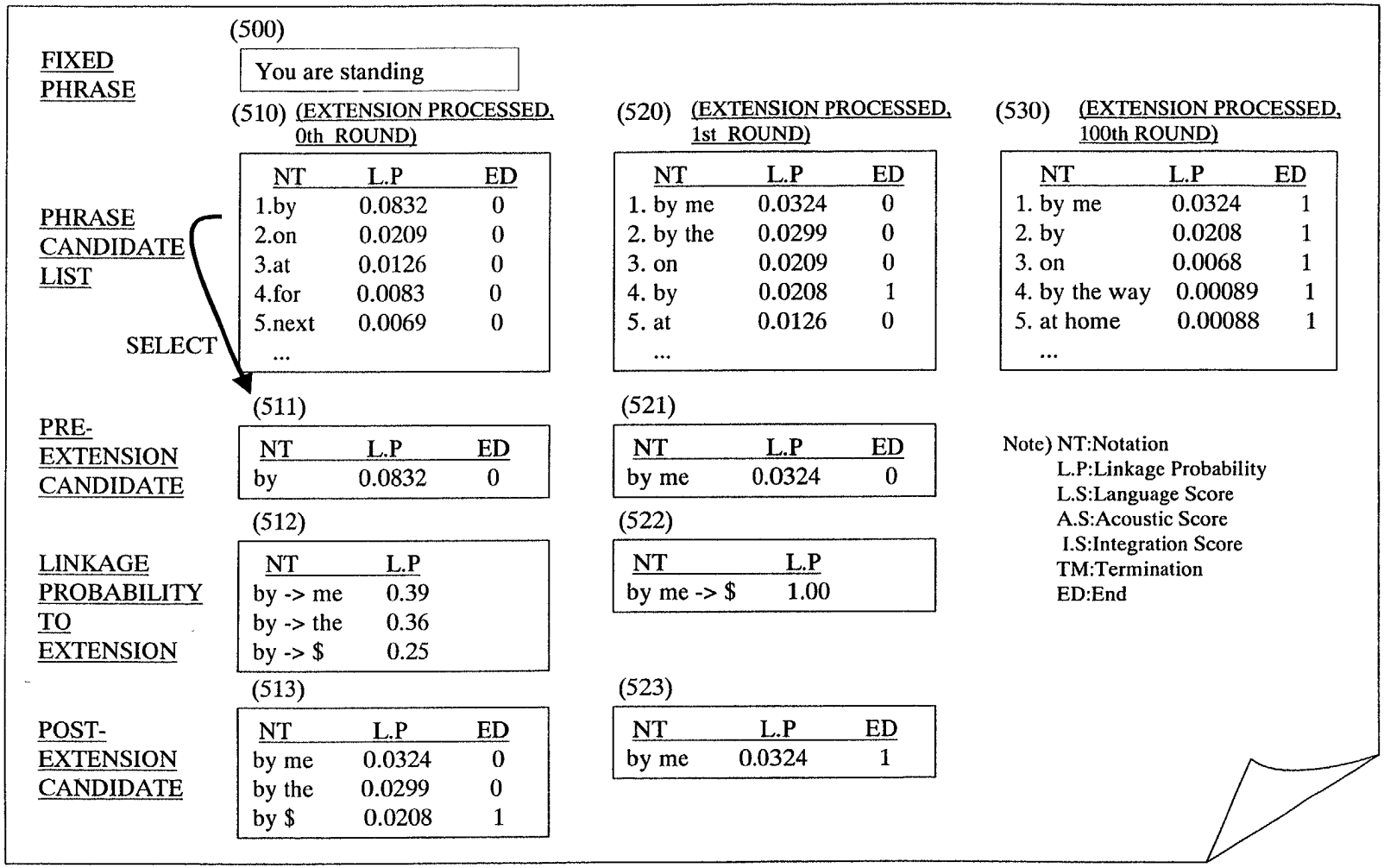

(500)
FIXED PHRASE
You are standing
(510) (EXTENSION PROCESSED, 0th ROUND)
(520) (EXTENSION PROCESSED, 1st ROUND)
(530) (EXTENSION PROCESSED, 100th ROUND)
PHRASE CANDIDATE LIST
SELECT
NT L.P ED
1.by 0.0832 0
2.on 0.0209 0
3.at 0.0126 0
4.for 0.0083 0
5.next 0.0069 0
...
NT L.P ED
1. by me 0.0324 0
2. by the 0.0299 0
3. on 0.0209 0
4. by 0.0208 1
5. at 0.0126 0
...
NT L.P ED
1. by me 0.0324 1
2. by 0.0208 1
3. on 0.0068 1
4. by the way 0.00089 1
5. at home 0.00088 1
...
(511)
PRE-EXTENSION CANDIDATE
NT L.P ED
by 0.0832 0
(521)
NT L.P ED
by me 0.0324 0
(512)
LINKAGE PROBABILITY TO EXTENSION
NT L.P
by -> me 0.39
by -> the 0.36
by -> $ 0.25
(522)
NT L.P
by me -> $ 1.00
(513)
POST-EXTENSION CANDIDATE
NT L.P ED
by me 0.0324 0
by the 0.0299 0
by $ 0.0208 1
(523)
NT L.P ED
by me 0.0324 1
Note) NT:Notation
L.P:Linkage Probability
L.S:Language Score
A.S:Acoustic Score
I.S:Integration Score
TM:Termination
ED:End

FIG. 5

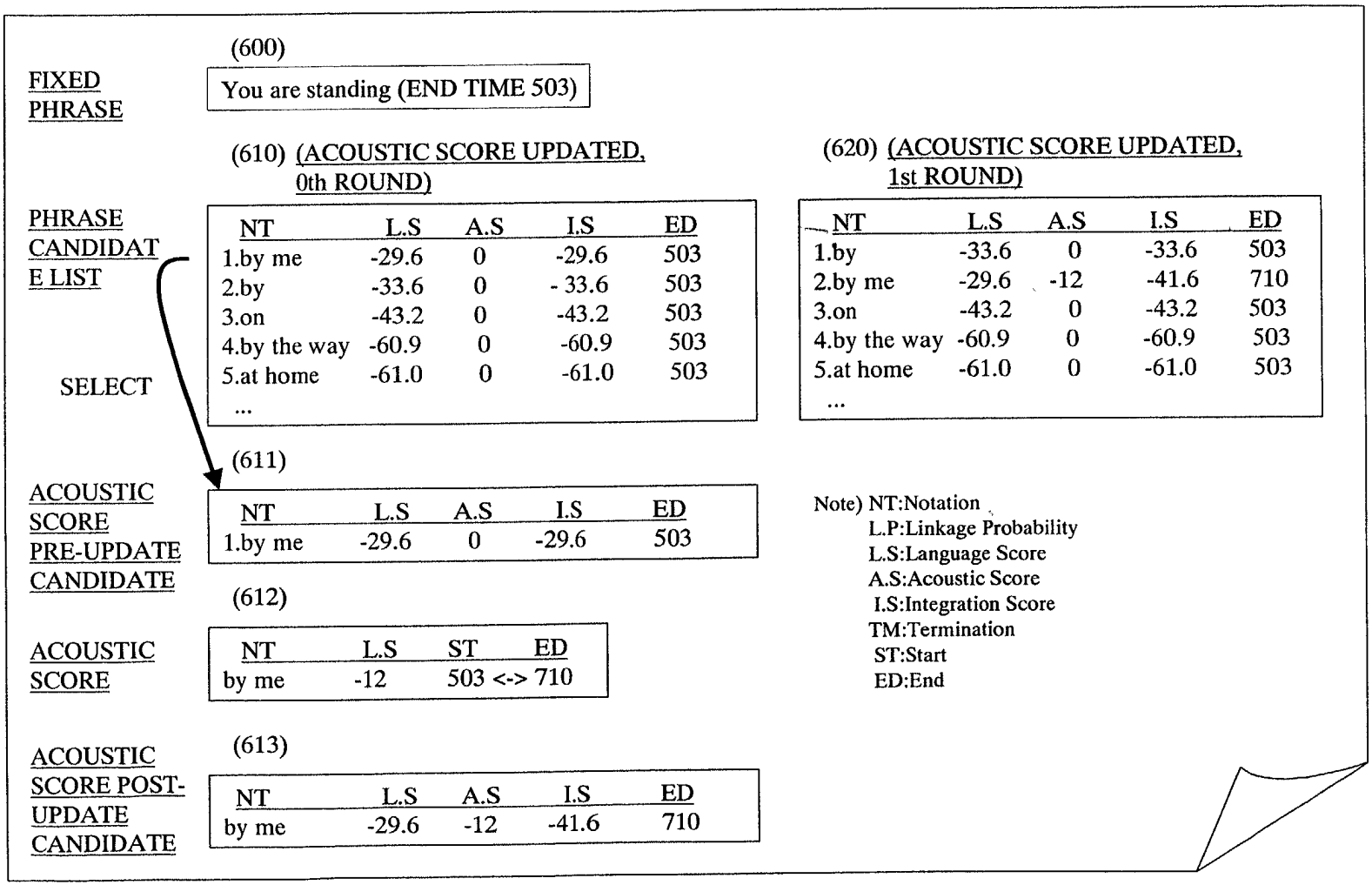

(600)
FIXED PHRASE
You are standing (END TIME 503)
(610) (ACOUSTIC SCORE UPDATED, 0th ROUND)
PHRASE CANDIDATE LIST
NT L.S A.S I.S ED
1.by me -29.6 0 -29.6 503
2.by -33.6 0 - 33.6 503
3.on -43.2 0 -43.2 503
4.by the way -60.9 0 -60.9 503
5.at home -61.0 0 -61.0 503
...
SELECT
(620) (ACOUSTIC SCORE UPDATED, 1st ROUND)
NT L.S A.S I.S ED
1.by -33.6 0 -33.6 503
2.by me -29.6 -12 -41.6 710
3.on -43.2 0 -43.2 503
4.by the way -60.9 0 -60.9 503
5.at home -61.0 0 -61.0 503
...
(611)
ACOUSTIC SCORE PRE-UPDATE CANDIDATE
NT L.S A.S I.S ED
1.by me -29.6 0 -29.6 503
(612)
ACOUSTIC SCORE
NT L.S ST ED
by me -12 503 <-> 710
(613)
ACOUSTIC SCORE POST-UPDATE CANDIDATE
NT L.S A.S I.S ED
by me -29.6 -12 -41.6 710
Note) NT:Notation
L.P:Linkage Probability
L.S:Language Score
A.S:Acoustic Score
I.S:Integration Score
TM:Termination
ST:Start
ED:End

FIG. 6

20ht20" t9s8286D

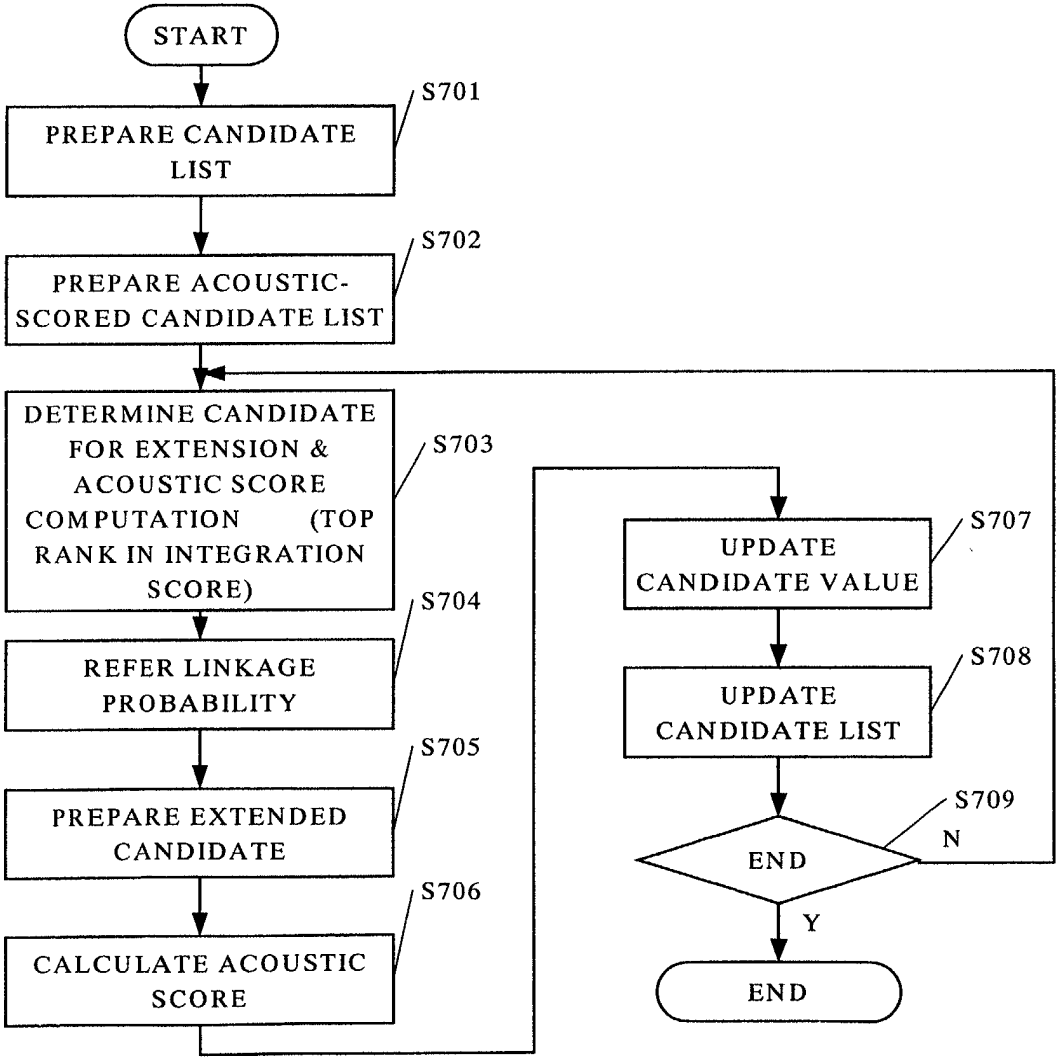


FIG.7

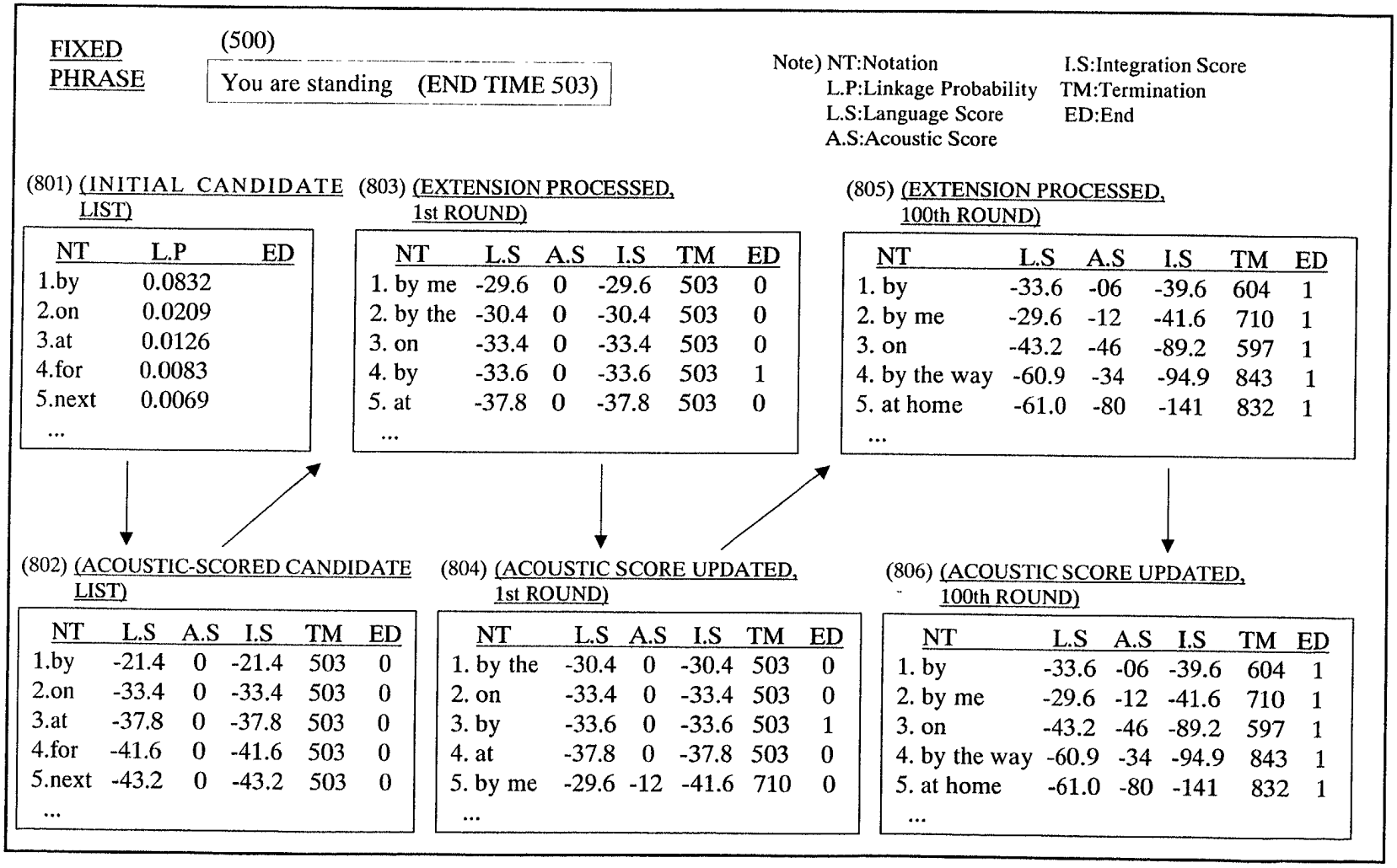

FIXED PHRASE
(500)
You are standing (END TIME 503)
Note) NT:Notation
L.P:Linkage Probability
L.S:Language Score
A.S:Acoustic Score
I.S:Integration Score
TM:Termination
ED:End
(801) (INITIAL CANDIDATE LIST)
NT L.P ED
1.by 0.0832
2.on 0.0209
3.at 0.0126
4.for 0.0083
5.next 0.0069
...
(803) (EXTENSION PROCESSED, 1st ROUND)
NT L.S A.S I.S TM ED
1. by me -29.6 0 -29.6 503 0
2. by the -30.4 0 -30.4 503 0
3. on -33.4 0 -33.4 503 0
4. by -33.6 0 -33.6 503 1
5. at -37.8 0 -37.8 503 0
...
(805) (EXTENSION PROCESSED, 100th ROUND)
NT L.S A.S I.S TM ED
1. by -33.6 -06 -39.6 604 1
2. by me -29.6 -12 -41.6 710 1
3. on -43.2 -46 -89.2 597 1
4. by the way -60.9 -34 -94.9 843 1
5. at home -61.0 -80 -141 832 1
...
(802) (ACOUSTIC-SCORED CANDIDATE LIST)
NT L.S A.S I.S TM ED
1.by -21.4 0 -21.4 503 0
2.on -33.4 0 -33.4 503 0
3.at -37.8 0 -37.8 503 0
4.for -41.6 0 -41.6 503 0
5.next -43.2 0 -43.2 503 0
...
(804) (ACOUSTIC SCORE UPDATED, 1st ROUND)
NT L.S A.S I.S TM ED
1. by the -30.4 0 -30.4 503 0
2. on -33.4 0 -33.4 503 0
3. by -33.6 0 -33.6 503 1
4. at -37.8 0 -37.8 503 0
5. by me -29.6 -12 -41.6 710 0
...
(806) (ACOUSTIC SCORE UPDATED, 100th ROUND)
NT L.S A.S I.S TM ED
1. by -33.6 -06 -39.6 604 1
2. by me -29.6 -12 -41.6 710 1
3. on -43.2 -46 -89.2 597 1
4. by the way -60.9 -34 -94.9 843 1
5. at home -61.0 -80 -141 832 1
...

FIG. 8

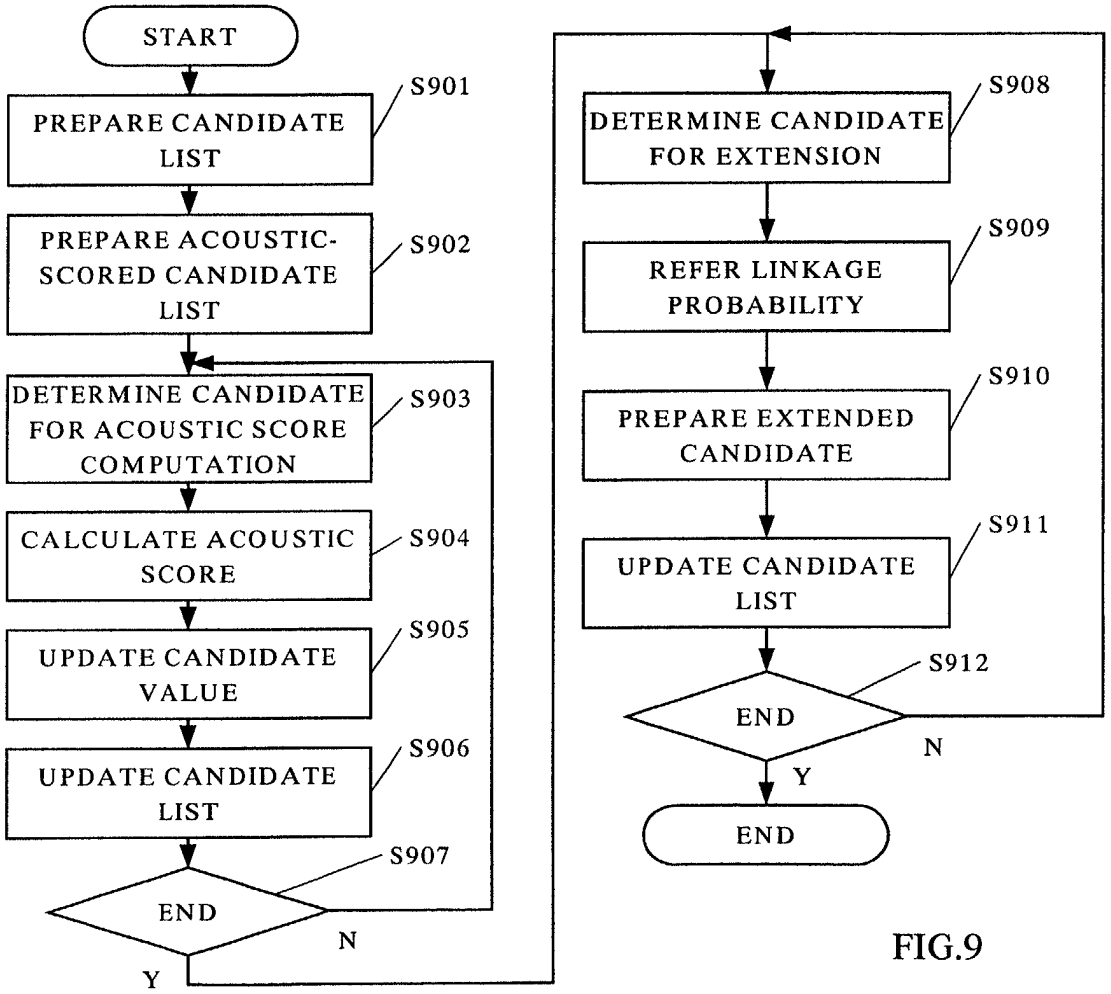
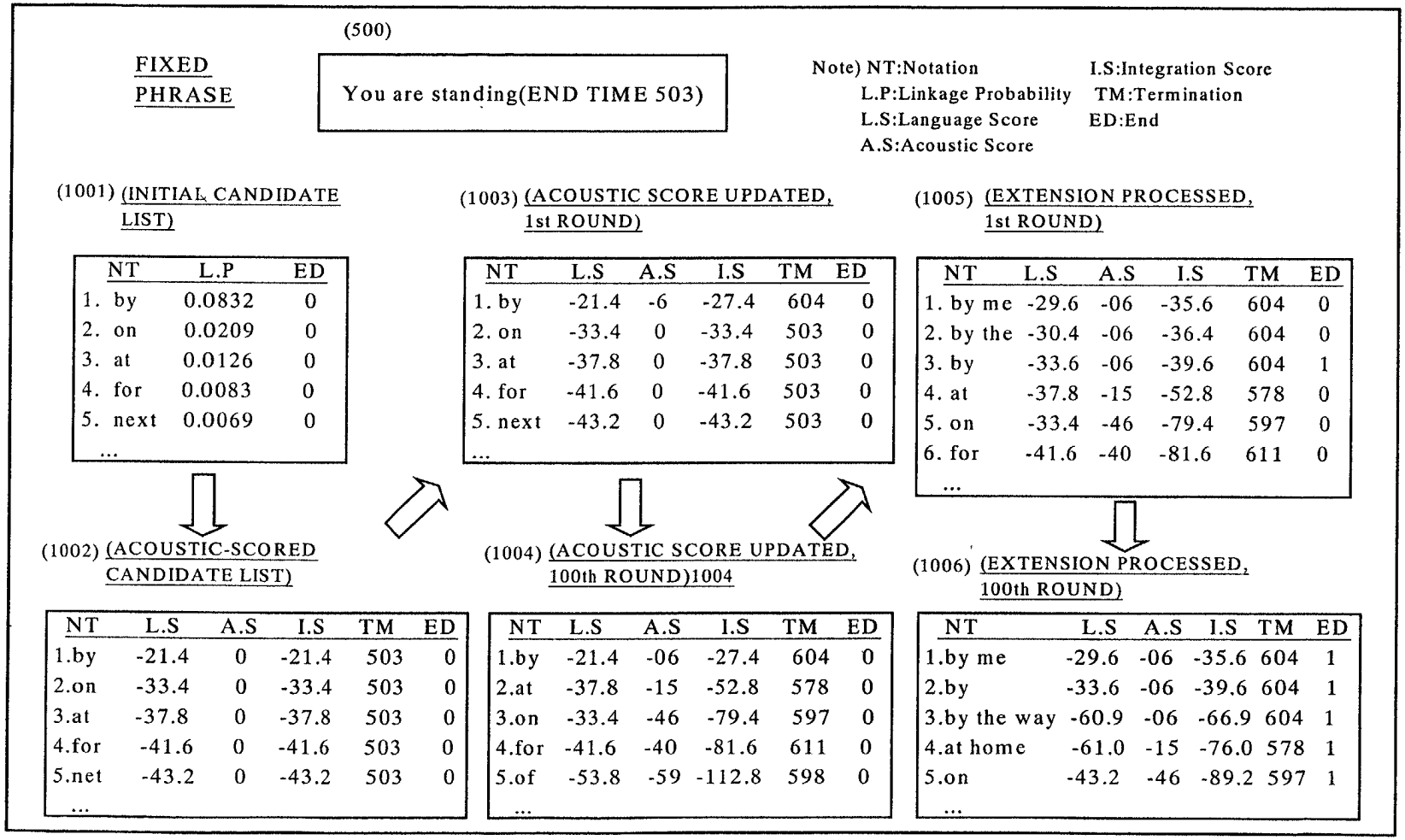

START
PREPARE CANDIDATE LIST
S901
PREPARE ACOUSTIC-SCORED CANDIDATE LIST
S902
DETERMINE CANDIDATE FOR ACOUSTIC SCORE COMPUTATION
S903
CALCULATE ACOUSTIC SCORE
S904
UPDATE CANDIDATE VALUE
S905
UPDATE CANDIDATE LIST
S906
END
S907
N
Y
DETERMINE CANDIDATE FOR EXTENSION
S908
REFER LINKAGE PROBABILITY
S909
PREPARE EXTENDED CANDIDATE
S910
UPDATE CANDIDATE LIST
S911
END
S912
N
Y
END

FIG.9



NT	L.P	ED
1. by	0.0832	0
2. on	0.0209	0
3. at	0.0126	0
4. for	0.0083	0
5. next	0.0069	0
...		

NT	L.S	A.S	I.S	TM	ED
1. by	-21.4	-6	-27.4	604	0
2. on	-33.4	0	-33.4	503	0
3. at	-37.8	0	-37.8	503	0
4. for	-41.6	0	-41.6	503	0
5. next	-43.2	0	-43.2	503	0
...					

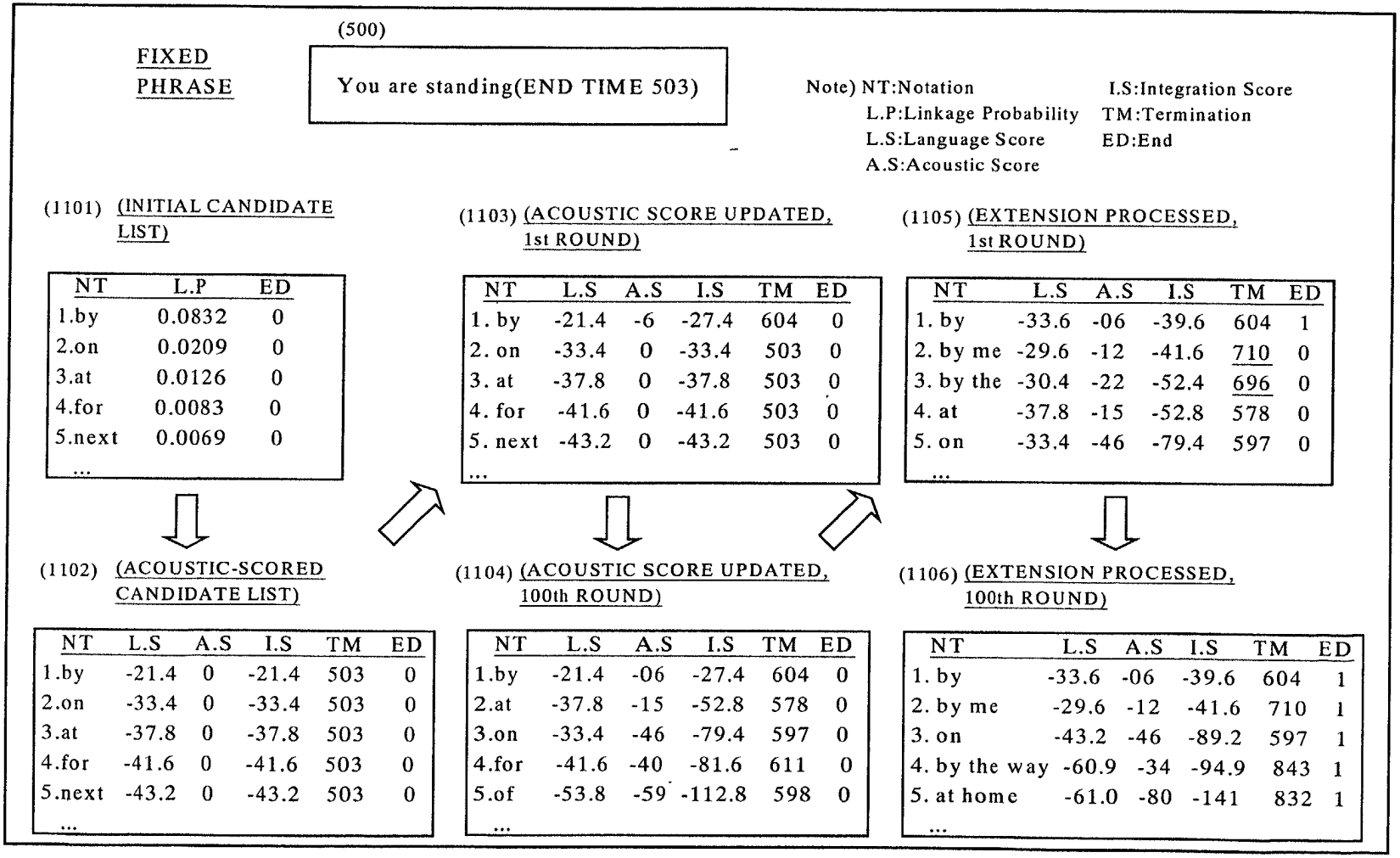
NT	L.S	A.S	I.S	TM	ED
1. by me	-29.6	-06	-35.6	604	0
2. by the	-30.4	-06	-36.4	604	0
3. by	-33.6	-06	-39.6	604	1
4. at	-37.8	-15	-52.8	578	0
5. on	-33.4	-46	-79.4	597	0
6. for	-41.6	-40	-81.6	611	0
...					

NT	L.S	A.S	I.S	TM	ED
1.by	-21.4	0	-21.4	503	0
2.on	-33.4	0	-33.4	503	0
3.at	-37.8	0	-37.8	503	0
4.for	-41.6	0	-41.6	503	0
5.net	-43.2	0	-43.2	503	0
...					

NT	L.S	A.S	I.S	TM	ED
1.by	-21.4	-06	-27.4	604	0
2.at	-37.8	-15	-52.8	578	0
3.on	-33.4	-46	-79.4	597	0
4.for	-41.6	-40	-81.6	611	0
5.of	-53.8	-59	-112.8	598	0
...					

NT	L.S	A.S	I.S	TM	ED
1.by me	-29.6	-06	-35.6	604	1
2.by	-33.6	-06	-39.6	604	1
3.by the way	-60.9	-06	-66.9	604	1
4.at home	-61.0	-15	-76.0	578	1
5.on	-43.2	-46	-89.2	597	1
...					

FIG. 10



NT	L.P	ED
1.by	0.0832	0
2.on	0.0209	0
3.at	0.0126	0
4.for	0.0083	0
5.next	0.0069	0
...		

NT	L.S	A.S	I.S	TM	ED
1.by	-21.4	0	-21.4	503	0
2.on	-33.4	0	-33.4	503	0
3.at	-37.8	0	-37.8	503	0
4.for	-41.6	0	-41.6	503	0
5.next	-43.2	0	-43.2	503	0
...					

NT	L.S	A.S	I.S	TM	ED
1. by	-21.4	-6	-27.4	604	0
2. on	-33.4	0	-33.4	503	0
3. at	-37.8	0	-37.8	503	0
4. for	-41.6	0	-41.6	503	0
5. next	-43.2	0	-43.2	503	0
...					

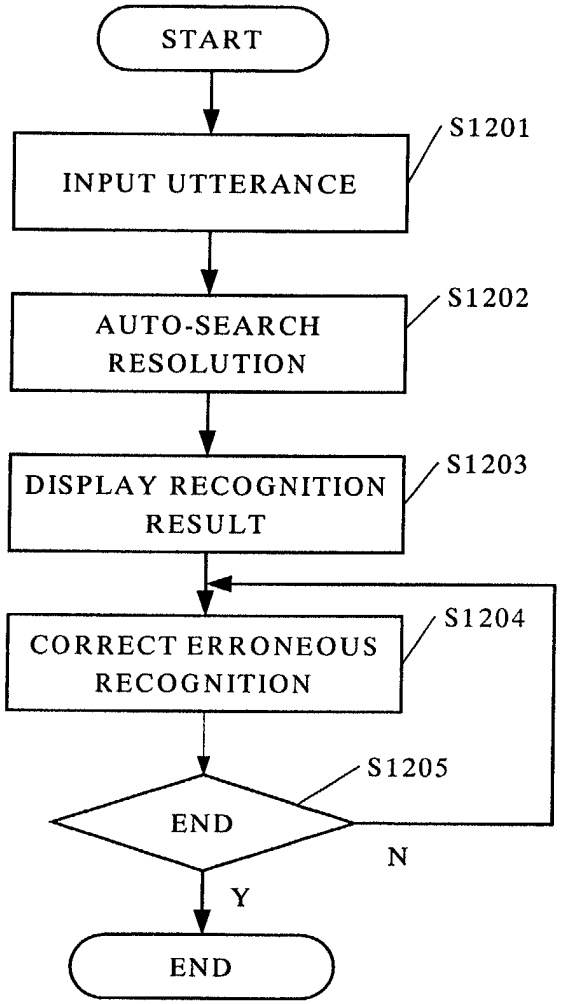
NT	L.S	A.S	I.S	TM	ED
1.by	-21.4	-06	-27.4	604	0
2.at	-37.8	-15	-52.8	578	0
3.on	-33.4	-46	-79.4	597	0
4.for	-41.6	-40	-81.6	611	0
5.of	-53.8	-59	-112.8	598	0
...					

NT	L.S	A.S	I.S	TM	ED
1. by	-33.6	-06	-39.6	604	1
2. by me	-29.6	-12	-41.6	710	0
3. by the	-30.4	-22	-52.4	696	0
4. at	-37.8	-15	-52.8	578	0
5. on	-33.4	-46	-79.4	597	0
...					

NT	L.S	A.S	I.S	TM	ED
1. by	-33.6	-06	-39.6	604	1
2. by me	-29.6	-12	-41.6	710	1
3. on	-43.2	-46	-89.2	597	1
4. by the way	-60.9	-34	-94.9	843	1
5. at home	-61.0	-80	-141	832	1
...					

FIG. 11

Authenticated



PRIOR ART

FIG.12